

MEMORY MAPPING TO REDUCE CACHE
CONFLICTS IN MULTIPROCESSOR SYSTEMS

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ABSTRACT

Methods, systems, and computer program products are disclosed for mapping a virtual memory page to a real memory page frame in a multiprocessing environment that supports a multiplicity of operating system images. Typical embodiments include retrieving into an operating system image, from memory accessible to a multiplicity of operating system images, a most recently used cache color for a cache, where the cache is shared by the operating system image with at least one other operating system image; selecting a new cache color in dependence upon the most recently used cache color; selecting in the operating system image a page frame in dependence upon the new cache color; and storing in the memory the new cache color as the most recently used cache color for the cache.